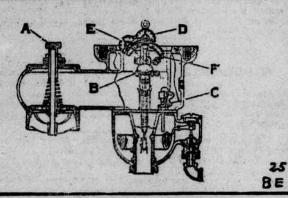
TROUBLE LOCATING. Having seen the places where trouble might occur, let us now see how go about the locating of just where the trouble is. Trouble hunting consists of a process of elimination, both by reasoning and by testing. Gasolene engine troubles might be divided into a number of classes: namely, engine stops while running smoothly; engine fails to start; engine misses; engine oes not develop full power. Let us first take up the sudden stopping of

ENGINE STOPS SUDDENLY.

Suppose the car has been running along finely at a good clip and then iddenly stops. What would we do? First of all, we would think of the tree essentials, namely: compression, mixture and ignition, and then reason talk to ourselves somewhat as follows:

All four cylinders will not lose their compression suddenly and all at the unless the cylinder head gasket, in the case of engines having a movable head, has blown out. So compression as a possible cause is elim

Is mixture trouble the cause? It might be. Have we gas in the tank? Yes. Is the gasolene feed system working O. K.? Apparently. Was there a popping in the carbureter before the stopping of the engine? If "Yes," then we can be reasonably sure that the trouble is due to the feed of the gasolene to the carbureter. If "No," then we must look further.



Can ignition have failed? Yes. Has the car vibration jarred our switch n? No. Is there any reason why the battery should be discharged? No. Did the car stop suddenly before as it has just done? Yes. What was cause that time? Why so-and-so. Is that the cause of the stopping now? the cause that time? Why so-and-so. Is that the cause of the stopping how. Let us get out and see. If, after an investigation, we fail to find the trouble to have been the same as the last time, then we will have to begin to look for the cause by examination and test. (From this paragraph you can see wisdom of always knowing what it was that caused the trouble, and the nedy therefor, as it is quite possible that the trouble may again develop.)

Having failed to locate the trouble by reasoning, what shall we do next? First run over the wiring quickly and see that none has come off or is shortcircuited, examining carefully all places where wires cross or rest against parts of the car, as the insulation may have worn off at one of these places.

The examination failing to show the trouble, what shall we do next? Compression being climinated, we must see whether the ignition or mixture has falled. Let us first check up the ignition. How? When our engine is running, the current runs through the wire from the distributer to the spark and then gives a spark by jumping across the gap of the plug to the ded portion, so if we were to take one of the wires off the plug and hold it about an eighth of an inch from metal of the engine, we will see a spark, if the ignition is O. K., when some one cranks the engine for us. Thus the first test to make is to take one of the wires from a plug, hold it about an eighth of an inch from the engine and get some one to crank the engine. If we get a spark, then we know that the ignition is O. K. and that the trouble is due to the mixture. If we do not get a spark, we know that the trouble is

an eighth of an inch from the engine and get some one to crank the engine. If we get a spark, then we know that the ignition is O. K. and that the trouble is due to the mixture. If we do not get a spark, we know that the trouble is in the ignition system and can forget about the mixture.

Suppose we did get a spark. We know now that mixture is the trouble. Is it the adjustment? No. The adjustment will not go wrong suddenly, so we will not touch the adjustment screws. Are we getting gasolene to the carbureter?

Let us hold down the primer "C" and see if the carbureter will flood. If it does not flood, we can be sure that the trouble is in the feed, or that we are out of gas. If we have gas, jet us remove the needle B and insert a fine hairpin in its hole. If the hole is not clogged, then we know that, either the feed pipe is clogged, or that the vacuum or pressure system is not working.

If the carbureter does flood, what then could be the trouble? Possibly water has gotten into the gasolene, so let us drain the carbureter and fill it with a fresh supply of gasolene and see if it will then run. We may even have to pour some raw gasolene into the cylinders through the compression cocks.

Sometimes, though rarely, the carbureter will come loose from the manifold, due to the boits working back, and thus allow extra air to get into the gravel and dirt roads of eastern with the ready of the sure of the possibly the carbureter will come loose from the manifold, due to the boits working back, and thus allow extra air to get into the gravel and dirt roads of eastern with the propert of the gravel and dirt roads of eastern with the propert of the way were fined to the possibly the carbureter will come loose from the manifold, due to the boits working back, and thus allow extra air to get into the gravel and dirt roads of eastern with the propert of the carbureter will come loose from the manifold, due to the boits working back, and thus allow extra air to get into the gravel and dirt roads of eastern with the propert of

Sometimes, though rarely, the carbureter will come loose from the manifold, due to the bolts working back, and thus allow extra air to get into the mixture, in this way weakening it so as to cause a complete stopping of the engine. You will be able to feel this looseness.

WOMEN DRIVERS IN

DORT COUPE CONTEST

#### HANDLEY-KNIGHT CAR NOW ON AUTO ROW

One of the latest additions in New York's automobile row is the Handley- October 12 the Dort Motor Car Company Knight motor car, which will have tem- will run a contest to determine the most porary showrooms at 209 West Fifty- popular lady driver in the metropolitan seventh street, near Broadway, under district. Her popularity will be deter-

the field.

The specifications of the Handley-Knight car include the Knight type motor, four cylinder, atuminum pistons, positive pressure feed lubrication system and thermo-cyphon system of water circulation.

#### **NEW LOW LEVELS FOR** THE OVERLAND CARS

THE OVERLAND CARS

The most radical reductions in motor car prices in the history of the automobile industry became effective this week upon all models of Willys-Knight and Overland cars, according to an announcement issued over the signature of John N. Willys. The statement of price change came as the feature of the announcement of the Willys-Knight and new series Overland.

The new price of the Overland touring car with electric starter, lights and demountable rims is \$595. One year ago this car sold for \$1,035. The Overland sedan that sold for \$1,675 is to be sold for \$895. The new prices represent a reduction of approximately 43 per cent. in one year. The 1916 Overland sold for \$655, a price that was thought could never be bettered.

#### WESTCOTT COMPANY REDUCES CAR PRICES

The Westcott Motor Company of ifty-seventh street and Seventh avenue announces substantial reductions in the price of Westcott automobiles. The manufacturers have gone to the task of lowering costs with determination with the object to promptly reach a staple and satisfactory level of prices. The reductions in effect amount to as much as the increases which they were forced to make during the entire three years preceding.

New Hampshire and Maine Roads Inspected by A. C. A. Official.

the ruts.

The road through Franconia Notch is in excellent condition and the same is true of all the approaches to the Notch. All the way from Boston, via Lowell, Nashua, Concord, Franklin and around through Laconia, Meredith and Plymouth the roads are in fine shape.

From Ossipee to Wolfboro the surface is poor. Construction is now going a between Malvin Village, and Wolfs.

Motorists should stay away from the east side of Lake Winnepssaukee unless it is absolutely necessary to make this trip, and then it is better to approach it from Center Harbor. From Center Harbor to West Ossipee there is a gravel road almost perfect, with the exception of about one hundred yards. This route forms a good connection between the Merrimac Valley and the Ossipee Valley and central Maine points. This route has the advantage of some very fine scenery.

The best way to go from Portland, Motorists should stay away from th

The best way to go from Portland, Me., to the White Mountains at the present time is via Cumberland Mills, Westbrook, Gorham, Standish, Steep Falls, West Baldwin, Hiram, East Brownfield, Fryeburg, Conway Center, Redstone and North Conway. This is all good gravel with the exception of short stretches under construction be-tween Steep Falls and Standish and between the Hiram town line and East

To reach Augusta from Portland the shortest and best way is to go to Bruns-wick, then over a good hard surfaced road which does not pass through a village all the way to Gardner; then there is four miles of rough road to Hallowell and good surface from there on to Augusta. The route from Augusta to Rockland via Togus. South Windsor Corners, Coopers Mille, Jefferson and Winslow Mills to Waldoboro is all good grayel, with the execution of a very can be used by motorists going east through Augusta if the objective poin

The gravel and dirt roads of eastern Maine are now at their best and rains do not affect them, in fact, a good hard ain makes them better.

#### A.C.A. FOREIGN MANAGER LEAVES FOR EUROPE



## You Get a Velie Just Like **Grand Canyon Winner!**

When you choose a Velie Six Model 34 you get a car like the Canyon Conqueror in every particular. The motor that took the car in and out of that terrible abyss with 1600-lb. load. The brakes that never slipped. The construction that did not require a single repair. And you get the Velie's distinguishing comfort and style. Eight Velie sixes, open and closed. See them.

Garland Automobile Company 1888 Broadway, at 62nd St., New York. Tel. Col. 5596



#### NEW AUTO LUBRICANT BRINGS FINE RESULTS

through the untiring efforts of Dr. E. G. Acheson world famous for his ac-day, Sept. 6. As usual the national complishments with the electric furnace shows will be held under the auspices the happy combination of "deflocculated" graphite and oil, a lubricant known as

All of northern New England and the maritime provinces of Canada were covered in the last inspection trip made by the road car of the Automobile Club of America, O. M. Wells, chief roadman, New Hampshire and Maine road conditions are embodied in this report and the next will give the touring possibilities in New Brunswick and Nova Scotia.

The east side trunk time from Portsmouth to Dixville Notch via Rochester, Ossipee, North Conway and the Pinkham Notch to Gorham, then up the Androscoggin Valley, is all in good condition, the surface consisting of gravel road recently dragged.

The Crawford Notch road from Bartlett to Twin Mountain is beginning to show wear from the heavy summer travel, but is in quite passable condition and should prove excellent for fall travel, the recent rains having packed and levelled the surface and eliminated the ruits.

The road trong franconia Notch is not condition and should prove excellent for fall travel, the recent rains having packed and levelled the surface and eliminated in the flocat graphite being in the oil the Coliseum and Armory.

All applications for space to be considered in the first space allotment must indefinitely. The graphoid surfaced, remain in suspension in the oil the coliseum and stream, in the oil the coliseum and stream, in the oil the first space allotment must indefinitely. The graphoid surfaced, remain in suspension in the oil the coliseum and stream, in the oil the first space allotment must indefinitely. The graphoid surfaced, remain in suspension in the oil the first space allotment must indefinitely. The graphoid surfaced, remain in suspension in the oil the first space allotment must indefinitely. The graphoid surfaced, remain in suspension in the oil the first packed in the mist packed are allotment must indefinitely. The graphoid surfaced, remain in suspension in the oil the first packed in the first space allotment must indefinitely. The graphoid surfaced, remain in suspension in the oil the first packed in the first packed in the first packed i

#### AUTO SHOW TO BE HELD AT THE PALACE

of the National Automobile Chamber of Commerce, Inc., and under the personal supervision of S. A. Miles. The New York show will take place in Grand Central Palace, Jan. 7-14, 1922, and the Chicago Exposition Jan. 28-Feb. 4

## The first cost is practically the last



Touring Car \$1085 Roadster \$1030 Sedan \$1920 Coupe \$1715

**NEW YORK** Stratton-Bliss Company 1847 Broadway NEWARK

BROOKLYN Bonnell Motor Car Co. Bishop, McCormick & Bishop 1221 Bedford Ave. 562 Broad St.

> DODGE BROTHERS MOTOR CARS

# And now -\$800 reduction on America's Smartest Car

New \$2

An average reduction of \$800 on all ROAMER models makes this fine car America's greatest value. We guarantee every specification and detail to be identical with models formerly priced \$800 higher.

## Investigate These Unique Features

Double cantilever spring construction, which gives greater riding comfort and better road traveling qualities; absolute safety is insured at very high road speed.

A strong and powerful chassis which has clearly demonstrated its mechanical efficiency and endurance by establishing six world's records at Daytona Beach, Florida, April 22, 1921, when a Roamer speedster model stock chassis established a new world's record of 105.1 miles per hour.

Roamer cars are the only real custom production cars made in this country today. Your choice of fourteen different colors of highest grade leather upholstering. Bodies painted and striped to suit purchaser. Optional selection of eight different kinds of highest grade top materials. All of the above without any extra charge.

Many people who have long wanted a Roamer are placing their orders at this remarkable new price. We advise you to see your dealer at once—to place your order NOW

ROAMER SALES CO., Inc. 1800 Broadway, New York

Tel. Circle 5262

BARLEY MOTOR CAR CO., KALAMAZOO, MICH.

#### WILLS SAINTE CLAIRE AGAIN BREAKS RECORD

Using the same Wills Sainte Claire stock touring car that made the record run of 691 miles from Detroit to New York in twenty hours twenty-six minutes on August 17. E. F. Miltenberger of New York shattered the New York to Boston and return record Friday. The car was taken from the New York showroom for this test and no adjustments or repairs of any sort were made. The driver, one passenger and 160 pounds of baggage were carried, top and windshield up.

The total elapsed time of this run was eleven hours and forty-seven minutes. The return was made in five hours thirty minutes, only twenty minutes slower than the running time of the Knickerbocker Limited, the fastest train between New York and Boston.

Dodge Brothers have recently put on the market an extremely beautiful sedan or are which has many noteworthy advantages over the one formerly marketed. The car is equipped with Cord thres all around, 33x4, and disc wheels. The windows are set in walnut window moulding, equipped with anti-rattiers to prevent the slightest tremor in the glass. The rear quarter windows are square.

This improved sedan is beginning to be seen on the streets of New York in increasing numbers, which bears excellent testimony to the reception being given this latest product of Dodge Brothers have recently put on the market an extremely beautiful sedan or arwhich has many noteworthy advantages over the one formerly marketed.

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# DODGE BROTHERS BRING AUTO DEAD

# We Announce

With much satisfaction the appointment

Messrs. Otto W. Heck and John O. Ekblom

Metropolitan Distributors of

# handlen-Knight America's Finest Knight-Motored Car

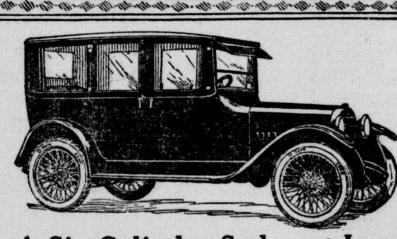
Temporary quarters

After October First at 1804 Broadway

209 West 57th Street

The Handley-Knight Company Kalamazoo, Mich.

Purveyors to the discriminating motorist.



# A Six Cylinder Sedan at Less Than Many Fours

Today's Oakland Six Sedan priced at \$1725 is the outstanding value in six cylinder closed cars, and also sells for less, in many instances, than four-cylinder sedans of other makes.

Today's Oakland Six Sedan sells for only \$580 more than the touring car, while the usual difference between other sedans and open models varies from \$800 to \$1200 and frequently much more. In addition to the many advantages of comfort that go with the purchase of a closed model, owners

of Today's Oakland Six Sedan enjoy a smooth even flow of power from the Oakland six-cylinder overhead valve engine, with no vibration or "rumble" to mar the pleasure of motoring.

These unusual equipment values are standard on Oakland Six Closed Models:

> Gabriel Snubbers Metal Visor Perfection Heater Cowles Locks on Doors

Cord Tires

The prices of Today's Oakland Six are: Touring Car \$1145, Roadster \$1095. Sedan \$1725, Coupe \$1625 and Sport Model \$1265-f. o. b. Pontiac.

OAKLAND MOTOR CAR CO.

New York Branch 1760 Broadway at 56th Street. Telephone Circle 4880

### The Oakland Creed

To build at a fair price an automobile so sightly as to uphold its owner's honest pride, so competent as to arouse his genuine respect, so reliable as to win his confidence, so economical as to serve his highest interest—this has been the purpose, is now the accomplishment, and will continue to be the endeavor to which Oakland devotes the whole of its energies, its resources and its skill.

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To-day's